

**Abstract**

A method of estimating the location of a wireless terminal is disclosed. The illustrative embodiment of the present invention is based on the observation that the signal strength of a signal from a transmitter is different at some locations, and, therefore, the location of a wireless terminal can be estimated by comparing the signal strength it currently observes against a map or database that correlates locations to signal strengths. Furthermore, the illustrative embodiment deduces the signal strength of one or more base stations' control channels at the wireless terminal based on the principal of reciprocity, whether or not the wireless terminal can actually receive the base stations' control channels but so long as the base station can receive and measure the uplink signal from the wireless terminal. The deduced signal-strength measurements can then used – alone or in combination with the empirical signal-strength measurements – to estimate the location of the wireless terminal.